



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/590,830  
Filing Date: August 28, 2006  
Appellant(s): KRAVITZ, ARNOLD

---

Todd A. Sullivan  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed on 8/17/2009 and 11/18/2009 appealing from the Office action mailed 8/27/2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct. However, the rejection of claims 1-4, 6, and 21 over Malakatas (6,467,388) in view of Ebert (2003/0033059) under 35 USC 102 is currently withdrawn as a result of applicant's arguments as included in the Appeal Brief. Note that claims 8-9, 15-16, and 18 are allowed and that claims 6 and 21 are now objected to in view of the withdrawal of the rejection of the rejection of claims 1-4, 6, and 21 over Malakatas in view of Ebert.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: The rejection of claims 1-4, 6, and 21

over Malakatas (6,467,388) in view of Ebert (2003/0033059) under 35 USC 102 is currently withdrawn as a result of applicant's arguments as included in the Appeal Brief.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

| <u>Patent Number</u> | <u>Name</u>     | <u>Issue Date</u> | <u>Filing Date</u> |
|----------------------|-----------------|-------------------|--------------------|
| US 6,980,152 B2      | Steadman et al. | December 27 2005  | July 3 2003        |
| US 5,992,288         | Barnes          | November 30 1999  | Nov. 3 1997        |
| US 6,467,388 B1      | Malakatas       | October 22 2002   | July 29 1999       |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

(A) Claim 1 is rejected under 35 102(e) as being anticipated by Steadman et al. (152).

(B) Claims 17 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Barnes (288).

(C) Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steadman et al. (152) in view of Barnes (288).

(D) Claims 7 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes (288) in view of Malakatas (388).

(A) Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Steadman et al. (152).

Steadman et al. (152) disclose a countermeasure system comprising:

a) at least one aircraft;

- b) an airborne countermeasure system; 142a, 144a, 144b
- c) a local countermeasure deployment device; 142b, 150
- d) multiple missile threats; col. 3, lines 56-63
- e) a central countermeasures management system; and 116; col. 4, lines 22-30  
and 56-68; and fig. 4
- f) a communication link. 12

(B) Claims 17 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Barnes (288).

Barnes (288) discloses a method of countering an airborne threat comprising:

- a) determining threat information; col. 4, lines 51-55
- b) transmitting threat information to a remote device; col. 3, lines 4-8; 38-41
- c) a remote device; TIC; TEWA; Target/Weapon Pairing  
Knowledge Database; col. 3, lines 8-  
14; col. 3, line 66 to col. 4, line 26
- d) transmitting source information; see fig. 3
- e) receiving instructions to deploy a countermeasure; col. 5, lines 23-30
- f) deploying said selected countermeasure; col. 5, lines 23-30
- g) referring to the process as a track file; col. 4, lines 21-26
- h) location of the target being a consideration; and see fig. 3
- i) source information is related to time. col. 3, lines 1-20

(C) Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steadman et al. (152) in view of Barnes (288).

Steadman et al. (152) apply as previously recited. However, undisclosed are a plurality of aircraft for deploying countermeasures. Barnes (288) teaches a plurality of aircraft for deployment of countermeasures (col. 3, lines 21-27). Applicant is substituting a plurality of aircraft for the aircraft and ground base response countermeasure arrangement of Steadman et al. as explicitly encouraged by the secondary reference (see col. 3, lines 21-27 of Barnes) with expected or predictable results. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Barnes to the Steadman et al. countermeasure system and have a countermeasure system with different remote site arrangements or locations.

(D) Claims 7 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes (288) in view of Malakatas (388).

Barnes (288) applies as previously recited. However, undisclosed is receiving the threat information from the remote source or remote firing unit. Malakatas (388) teaches receiving the threat information from the remote source or remote firing unit (col. 4, lines 40-54). Applicant is providing a particular location for the sensor providing information about the incoming airborne threat in an analogous art setting with expected or predictable results. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Malakatas to the Barnes method of countering airborne threats and have a method whose method for receiving information is via a sensor located on the remote source or remote firing unit.

**(10) Response to Argument**

(A) The response to the arguments directed to the rejection of claim 1 under 35 U.S.C. 102(c) as being anticipated by Steadman et al. (152) are as follows. It is argued that nothing in Steadman indicates that the processor 116 has specific knowledge of the countermeasure 141 located on the aircraft. In response, please note col. 5, line 23 to col 6, line 6; col. 7, lines 7-19; col. 8, lines 40-59; and col. 10, lines 1-22. Each of the sections denote how a particular type of threat is classified and how dependent on the type of threat present; a particular cue signal is sent to cue a particular type of aircraft countermeasure. It is further argued that the processor basically cues the aircraft to flip the on-switch for the ACS. This is accurate; however the processor selects a particular ACS to cue dependent upon the selected type of countermeasure desired. Further, the claim language of claim 1 is so broad that even if only a single device were cued it would read on the claim language. It is further argued that the process of Steadman does not control the deployment of countermeasures in the same way that applicant does. In response, since the written specification provides no specific definition of what the terms control deployment must meet; any type of control of deployment meets this claim limitation. Further, the control mechanism of Steadman et al. does control deployment by selectively cueing a particular ACS as determined by decision logic block 318 or the method of signal processing as attributed to signal processing 500. It is further argued that the CCMS of Steadman can only turn the device on and not off. This argument is speculative in nature. However, all that is required to send a particular countermeasure is to selectively cue or selectively turn on a particular selected countermeasure.

(B) The response to the arguments directed to the rejection of claims 17 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Barnes (288) are as follows. It is argued

that Barnes does not determine threat information. This is clearly inaccurate. As a particular threat enters a particular defensive zone, the target is not only sensed but also categorized (see col. 4, lines 49-55 and the table as illustrated in fig. 7). After the threat information is sensed (entry of target into a particular zone); it is transmitted to the TIC and with the aid of the Zone Target Priority Database and the Target/Weapon Pairing Knowledge Data base categorization; a particular type of weapon in a particular zone is assigned to a particular type of threat (see col. 3, lines 4-17 and table 7). It is further argued that a remote device is not present but rather only a TEWA algorithm and an associated chart. This is an incomplete assessment of Barnes and consequently inaccurate. The Target Priority Database and the Target/Weapon Pairing Knowledge Data base in combination with the TIC are used to match a particular incoming target to a particular weapon located in a particular zone (see col. 3, lines 4-20 and table 7). After this is accomplished an engagement command is automatically transmitted to a particular fire unit in a particular zone (see col. 3, lines 14-20).

Applicant further argues that ethereal databases, calculations, and algorithms are not devices. This is accurate. However, it is not an accurate assessment of what Barnes teaches. The TIC utilizes both the Target Priority Database and the Target/Weapon Pairing Knowledge Data base to pair a particular weapon in a particular zone to a particular target (see table 7 and col. 3, lines 14-20). The devices that would perform these types of function can be either hard wired or soft wired as is typically known to anyone of skill in this art and need not be further addressed.

It is further argued that Barnes is silent as to the location of the control device or TIC. In response, note that as each target enters a particular zone; the control device (TIC + The Target Priority Database + the Target/Weapon Pairing Knowledge Data base) assigns a particular target

priority and pairs a particular weapon to a particular incoming target (see table 7). It does this pairing for each of the different zones (1-4) (see col. 4, lines 49-61). Consequently, the control device (TIC + The Target Priority Database + the Target/Weapon Pairing Knowledge Data base) is responsible for pairing incoming targets incoming any zone to weapons available in any particular zone (zones 1-4).

Once again, applicant argues that the control device, claimed as a "remote device" is not located remotely. In response, clearly the (TIC + The Target Priority Database + the Target/Weapon Pairing Knowledge Data base) must inherently be located somewhere. Viewing fig. 2, if the TIC++ is located outside of zones 1-4; it is located remotely. If the TIC++ is located in any one of zones 1-4; it must be considered to be located remotely relative to the other zones. By way of example, if the TIC++ is located in zone 2, it is considered to be remote relative to zones 1, and 3-4; etc.. Consequently, the TIC++ inherently meets the claim limitation directed to a "remote device" as claimed. With regard to the argument that the table must inherently be located remote from the algorithm, the table 7 defines the order of target processing by the TIC and the weapon allocation to be employed (see col. 4, lines 49-55). Its location is not at issue. The location of the TIC++ is at issue and has been addressed above.

(C) The response to the arguments directed to the rejection of Claims 2-4 as rejected under 35 U.S.C. 103(a) as being unpatentable over Steadman et al. (152) in view of Barnes (288) are as follows. Applicant repeats his contention that claim 1 is not anticipated by Steadman et al. (152). These arguments have already been addressed in section (A) of the arguments section above and need not be further addressed. No separate arguments have been made with regard to



the combination of Steadman et al. in view of Barnes and consequently this particular rejection need not be addressed further.

(D) The response to the arguments directed to the rejection of Claims 7 and 10-14 as rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes (288) in view of Malakatas (388) are as follows. It is argued that Barnes fails to teach the threat information and the countermeasure originate from the same source. In response, Malakatas is being relied to teach this claim limitation; not Barnes. Malakatas teaches that the antennas are present in each particular zone for providing threat information ((14, 114, 24, 124), (see figs. 5 and 2)), see col. 4, lines 40-67). Each antenna, in each separate zone, via the antenna sensor in the zone, provides threat information from a particular zone or source (e.g. area or zone 130). Each particular zone (e.g. 130) in each separate location also has countermeasures that are deployed or originate from that particular zone (16, 116, 216 (see fig. 5), and col. 3, lines 58-62).

It is argued that Malakatas does not exercise control over other firing units or instruction to a remote source. This argument is not convincing for several reasons. First, it isn't accurate. Each of the Malakatas firing units is able to act as a master unit with regard to the other units being considered to be slave units (see col. 1, line 62 to col. 2, line 34). Secondly, and more importantly, Barnes, as already described teaches these features. Malakatas is only being relied upon to teach the claim limitations directed to the threat information and the deployed countermeasures originating from the same source (any of the associated zones 16, 116, 216) as has already been explained. It is argued that neither reference teaches a countermeasure that is capable of deterring an airborne threat from inflicting damage to an aircraft. In response, please note Barnes (col. 3, lines 12-19; col. 4, lines 49-59; and table 7) and Malakatas (col. 3, lines 58-

62). With regard to Barnes only protecting nation borders. Clearly Barnes is designed to protect more than just the border. Barnes is also responsible for protecting the armament within the zone borders including the aircraft patrolling the protected zones (see col. 3, lines 21-29). With regard to the step of selecting a particular airborne threat or prioritizing a particular threat with a countermeasure capable of deterring the threat, see col. 3, lines 3-20 and table 7 of Barnes.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Stephen M. Johnson/

Primary Examiner, Art Unit 3641

Conferees:

Heather Shackelford /hcs/

Michael Carone /mjc/

